

S/068/62/000/003/003/003
E071/E435

Corrosion resistance

of the condenser from steel X18H12M2T (Kh18N12M2T) or ATM-1.
At the side of entry of aggressive vapours, the condenser tube can
be protected by coating with bakelite lacquer and subsequent
thermal polymerization of the latter. There are 3 tables.

ASSOCIATION: UKhIN

Card 2/2

8/0068/64/000/005/0042/0044

ACCESSION NR: AP4038930

AUTHOR: Gromov, Ye. I.; Cherkashin, V. N.; Tselik, V. Ye.

TITLE: Corrosion activity of ammonium and sodium rhodanates

SOURCE: Koks i khimiya, no. 5, 1964, 42-44

TOPIC TAGS: sodium rhodanate, ammonium rhodanate, steel corrosion, rhodanates
steel corrosion, thiocyanate steel corrosion, synthetic fiber

ABSTRACT: This work was prompted by the planned increase of synthetic fiber production requiring increasing amounts of sodium and ammonium rhodanates. Their preparation from isocyanates involves steel equipment, namely, dissociators and evaporators. Therefore, a study was made to ascertain the corrosion of different types of steel in this equipment. As a result of their tests, the authors found the corrosion rate of steels St3, 1Kh13, 1Kh17T, 1Kh18N9T, EI530, 1Kh18N12M3T and EI629, depending on temperature and ammonium rhodanate concentration. With increasing temperature and salt concentration, steel corrosion rises markedly for types St3, 1Kh13, 1Kh17T, 1Kh18N9T. The authors have found the corrosion of steels St3, 25KhGSA, 1Kh13, 1Kh18N9T, 1Kh18N12M3T and EI629 versus the pH of sodium

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ACCESSION NR: AP4038930

rhodanate running from 1.8 to 8.65. Along with decreasing pH of the solution, the corrosion rate of St3, 25KhGSA and 1Kh13 abruptly increases. ATM (=antifric-tion thermoconductive material: a combination of graphite and phenolformaldehyde resin) can be used as material for the dissociator in the production of ammonium rhodanate. The best material for pure salt separation equipment is the Kh18N12M3T stainless steel, while for the absorption equipment steels Kh27 and 1Kh18N9T are recommended, likewise steel 0Kh13. Orig. art. has: 2 figures and 3 tables.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 05Jun64

ENCL: 00

SUB CODE: MT, MM

NO REF SOV: 002

OTHER: 000

Card 2/2

L 23073-65 EWO(j)/EWP(e)/EWT(m)/EPF(o)/EPR/EWP(j)/T/EWP(v)/EWP(b)/EWP(l) Pc-L/
Pr-L/Pr-L RM/WH/WW

ACCESSION NR: AR4048186

S/0081/64/000/009/S100/S100

SOURCE: Ref. zh. Khimiya, Abs. 9S671

AUTHOR: Gromov, Ye. I.; Cherkashin, V. N.

TITLE: Determining the adhesive capacity of paints and varnishes

CITED SOURCE: Sb. nauchn. tr. Ukr, n.-i. uglekhim. in-t, vy*p. 14(36), 1963, 111-112

TOPIC TAGS: paint film, varnish film, film adhesive strength, adhesive power, asbovinyl film, bakelite varnish, ethynol varnish, undercoat

TRANSLATION: The authors report the following values for the adhesion (in kg/cm²) of various films to metal: film based on asbovinyl composition, 24.6; asbovinyl plus 10% powdered diabase, 28; asbovinyl plus 10% graphite, 24.9; KhSL varnish, 14.2; bakelite varnish, 57.6; ethynol varnish (50% film forming), 95.3; BF-2 glue, 120; epoxide undercoat E-4021, 133; and undercoat E-4022, 108. The measurement was based on a determination of the pull directed perpendicularly to the surface, and was carried out on a tensile testing machine of the RMP-500 type, using specimens shaped like small cylinders with an area of 2 cm². A layer of varnish

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ACCESSION NR: AR4048186

was applied to the sand-blasted and defatted end surfaces of the cylinders and allowed to dry into a film, after which another layer of varnish was applied and the cylinders were carefully aligned end to end. When the adhesion is determined by such a method, without intermediate layers and glues, the results pertain only to the film under investigation. G. Tseytlin

ASSOCIATION: None

SUB CODE: MT

ENCL: 00

Cord 2/2

GROMOV, Ye.N., inzhener.

~~SECRET~~
Strengthen the roadbuilding organizations of the R.S.F.S.R. Avt.
dor. 18 no.8:4-5 D '55. (MLRA 9:5)
(Road construction)

GROMOV, Ye. *N.*

A new book which has already become old ("Analysis of the economic activity of road machinery stations." A.I.Grunberg, N.S.Nikiforev. (MLRA 9:6)
Reviewed by Gromov). Avt.der.19 no.2:30 P '56.
(Road construction) (Road machinery) (Grunberg, A.I.) (Nikiforev, N.S.)

GROMOV, Ye.N., inzh.

Work of organizations of the Moscow Trust for Gas Pipeline
Construction. Stroi. truboprov. 5 no.8:7-9 Ag '60. (MIRA 13:9)
(Pipelines--Cold weather conditions)

GROMOV, Ye.V.

Practice of using short-base parallactic traverse surveying. Good.
i kart. no.9:34-39 S '63. (MIRA 16:10)

~~SECRET~~ Ye.V., inzh.

Conference on the problems of geodimetric traversing. Inzh. Ye. V. V.
zav. i geod. i aerof. no. 1: 147-148 '64.

(MHA 17412)

KRONGAUZ, A.N., PARSHIN, I.M.; BROKSH, V.R.; GROMOV, Yu.D.; YAKUNIN, V.F.

Universal condenser dosimeter for roentgen and gamma irradiations.
Vest. rent. 1 rad. 37 no.5:60-63 S-O '62. (MIRA 17:12)

1. Iz dozimetricheskogo otdela (zaveduyushchiy -- dotsent A.N. Krongauz) i eksperimental'nykh masterskikh (direktor I.M. Parshin) Gosudarstvennogo nauchno-issledovatel'skogo rentgeno-radiatsionnogo instituta (direktor -- prof. I.G. Lagunova).

GROMOV, Yu.N.; IVANENKO, B.G., nauchnyy sotrudnik

Mechanized filling station. Zashch.rast.ot vred. i bol. 5
no.2:14-15 F '60. (MIRA 15:12)

1. Zaveduyushchiy otделom mekhanizatsii Severo-Kavkazskogo instituta sadovodstva i vinogradarstva (for Gromov).
(Spraying and dusting equipment)

GARBUZOV, G.A.; GROMOV, Yu.V.; MIKHAYLOV, A.V.

Equipment for making sewage screens [Suggested by G.A. Garbuzov,
Yu.V. Gromov, A.V. Mikhailov]. Rats. i izobr. predl. v stroi. no. 148:
20-28 '56. (MLRA 10:5)

(Sewerage)

GROMOV, Yu.V.

Some investigations of betatron injectors. Trudy Inst. met.
no.8:217-224 '61. (MIRA 14:10)
(Betatron)

Gromov, Yu. Ya.

USSR/Geology

Card 1/1 Pub. 22 - 35/47

Authors : Gromov, Yu. Ya.

Title : ~~Seashore reef deposits~~
Seashore reef deposits

Periodical : Dok. AN SSSR 98/5, 829-831, Oct 11, 1954

Abstract : Geological data regarding shales and other reef deposits, found along the seashores, are presented. Ten references: 8-USSR; 1-Japanese and 1-Chinese (1934-1952). Table.

Institution : All-Union Scientific Research Geological Institute, Leningrad

Presented by : Academician N. M. Strakhov, August 14, 1954

GROMOV, Yu. Ya.

USSR/ Geology

Card 1/1 Pub. 22 - 30/46

Authors : Belyayevskiy, N. A., and Gromov, Yu. Ya.

Title : The Central Sikhote-Alinsk structural junction

Periodical : Dok. AN SSSR 103/1, 109-111, Jul 1, 1955

Abstract : Geological data are presented showing that the Central Sikhote-Alinsk junction separates the zone of Upper Paleozoic deposits of the main Sikhote-Alinsk anticlinal fold from the territory occupied by strong Mesozoic strata of the synclinal structure. Two USSR references (1947 and 1951). Diagram.

Institution : All-Union Sc. Res. Geol. Inst.

Presented by : Academician N. S. Shatskiy, January 27, 1955

GROMOV, Yu.Ya.

Sinian and Cambrian stratigraphy of the southern part of the
Maritime Territory [with summary in English]. Sov. geol. 1
no.6:44-53 Ja '58. (MIRA 11:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut.
(Maritime Territory--Geology, Stratigraphic)

GROMOV, Ya. Ya.

Tectonic pattern and formation of the Ussuri-Khankay median
massif. Sov.geol. 2 no.12:40-51 D '59. (MIRA 13:5)

1. Vsesoyuznyy geologicheskii nauchno-issledovatel'skiy institut.
(Sikhote-Alin' Range--Geology)

GROMOV, Yu.Ya.; PUTINTSEV, V.K.

Basic features of Pre-Cambrian geology in the southern part of the
Soviet Far East and adjacent territories. Dokl.AN SSSR 138 no.6:
1409-1412 Je '61. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut.
Predstavleno akademikom D.S.Korshinskim.
(Far East—Geology, Structural)

BELYAYEVSKIY, N.A.; GROMOV, Yu.Ya.

Paleozoic stage of the geological development of the Sikhote-Alin'
Range and southern Maritime Territory. Sov. geol. 5 no.7:41-63
Jl '62. (MIRA 15:7)

1. Ministerstvo geologii i okhrany neдр SSSR i Vsesoyuznyy
nauchno-issledovatel'skiy geologicheskiiy institut.
(Sikhote-Alin' Range--Geology, Structural)
(Maritime Territory--Geology, Structural)

GROMOV, Yu.Ya.

Marginal troughs of median massifs. Trudy VSEGEI 85:91-100
'63. (MIRA 16:11)

SPIZHARSKIY, L.N.; GROMOV, Yu.Za.; Irinimall volostnye: BOROVNIKOV, L.I.;
RUSSE, E.I.; GOREISKAYA, Ye.N.; ZHUKOV, Ye.T.; SALOP, L.I.; SHTAL',
N.V.

Entectectonic maps and the method for plotting them. Metod.
paleogeog. 1951. no. 1. 222-241. 1. 1. (MIRA 18:6)

GROMOV, Yu. V.

New, highly efficient injector for betatrons. Trudy Inst. met.
no. 12:276-281 '63. (MIRA 16:6)
(Betatron)

MATAKSI, T. [Mataxis, T.], polkovnik; GOLDBERG, S., podpolkovnik;
ALEKSANDROV, I.A. [translator]; GROMOV, Yu.Ye. [translator];
PETROV, V.G. [translator]; TSYGICHKO, N.P., red.; NEPODAYEV,
Yu.A., red.; IOVLEVA, N.A., tekhn.red.

[Pentomic Division; tactics, armaments and firepower of the pentomic
division, battle groups and companies operating under conditions
of atomic warfare] Pentomicheskaya diviziya; taktika, vooruzhenie
i ognevaia moshch' pentomicheskoi divizii, boevoi gruppy i roty v
usloviakh primeneniia iadernogo oruzhiia. Pod red. N.P.TSygichko.
Moskva, Izd-vo inostr.lit-ry, 1959. 345 p. Translated from the
English. (MIRA 13:6)

(United States--Army) (Atomic warfare)

RYAKHOVSKIY, V.; RAGIMOV, Z., kand. biolog. nauk; SULEYMANOV, S., mladshiy nauchnyy sotrudnik; SHVETSOVA, A., dotsent; SEMENOV, A., assistant; GROMOVA, A., kand. biolog. nauk; SELIN, I., nauchnyy sotrudnik; LAZHAUNIKAS, Ye.; MELESHKO, R.; PREOBRAZHENSKIY, V., starshiy prepodavatel'

To the attention of a plant protector. Zashch. rast. ot vred. i bol.
10 no.6:40-43 '65. (MIRA 18:7)

1. Zaveduyushchiy otdelom zashchity rasteniy Luganskoy sel'skokhozyaystvennoy opytной stantsii (for Ryakhovskiy).
2. Azerbaydzhanskiy nauchno-isledovatel'skiy institut zashchity rasteniy, Kirovabad (for Ragimov, Suleymanov).
3. Omskiy sel'skokhozyaystvennyy institut (for Shvetsova, Semenov).
4. Otdel zashchity rasteniy Smolenskoy sel'skokhozyaystvennoy opytной stantsii (for Selin).
5. Zaveduyushchiy Tel'manskiy punkt signalizatsii i prognozov, Karagandinskaya oblast' (for Lazhaunikas).
6. Zaveduyushchaya Vitebskiy punkt signalizatsii i prognozov (for Meleshko).
7. Buryatskiy sel'skokhozyaystvennyy institut (for Preobrazhenskiy).

GROMOVA, A., kand. biolog. nauk; VLADIMIRSKAYA, M., kand. sel'skokhoz. nauk;
GUSEV, G., kand. biolog. nauk

Reviews and bibliography. Zashch. rast. ot vred. i bol. 10 no.6:61-62
'65. (MIRA 18:7)

1. Brestskiy pedagogicheskiy institut (for Gromova). 2. Vsesoyuznyy
nauchno-issledovatel'skiy institut zashchity rasteniy (for Vladimirskaia,
Gusev).

GROMOVA, A.A.; BELENKOVA, Ye.G., starshaya svinarka; ZAYTSEV, V.S., red.;
TIKHONOVA, I.M., tekhn.red.

[You gave your word; keep it!] Dal slovo - sdershi! Leningrad,
Lenizdat, 1959. 84 p. (MIRA 13:4)

1. Sekretar' partynoy organizatsii kolxosa "Pervoye maya" Gat-
chinskogo rayona, delegat XXI s"yezda KPSS (for Gromova). 2. Agri-
tator kolxosa imeni XXI parts"yezda Vsevolozhskogo rayona (for
Belenkova).

(Agriculture)

SOV/81-59-5-16887

Translation from: Referativnyy zhurnal, Khimiya, 1959, Nr 5, p 461 (USSR)

AUTHORS: Khaznaferov, A.I., Gromova, A.A., Fokeyev, V.M.

TITLE: The Interaction of Yarega Oil With Carbon Dioxide //

PERIODICAL: Tr. Vses. neftegaz. n.-i. in-t, 1958, Nr 15, pp 146 - 162

ABSTRACT: The properties of Yarega oil degasified and saturated with CO_2 and CH_4 were studied. The degasified oil is characterized by a viscosity of 3,490 centipoise at 20°C and a viscosity of 182 cpoise at 60°C . Oil which is saturated with CH_4 at 150°C has a viscosity of 100 cpoise at 40°C and 40 cpoise at 60°C , and oil saturated with CO_2 at 150 atm has a viscosity of 68 cpoise at 20°C and 10 cpoise at 60°C . A conclusion is drawn that highly viscous Yagera oils can be extracted from collectors, which have no cracks, by pumping in CO_2 or mixtures of CO_2 with hydrocarbon gases.

M Rudenko

Card 1/1

СЕРИЯ А, 4-11

USSR/Chemical Technology. Chemical Products and Their Application -- Treatment of natural gases and petroleum. Motor fuels. Lubricants, I-13

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5496

Author: Mamuna, V. N., Gromova, A. A., Namiot, A. Yu., Pokeyev, V. M.

Institution: All-Union Petroleum and Gas Scientific Research Institute

Title: Mutual Solubility of Carbon Dioxide and Romashkinskaya Petroleum

Original

Publication: Tr. Vses. neftegaz. n.-i. in-ta, 1956, No 8, 392-399

Abstract: Investigation of mutual solubility of CO₂ and Romashkinskaya petroleum (molecular weight 253, d₄²⁰ 0.8736, content of paraffins 3.40%, of tars 15.75% by volume, starts to boil at 60°) under conditions corresponding to the average stratum conditions of the Romashkinskoye oil field. The CO₂ used was contained in cylinders under a pressure of 60 kg/cm² and included ≤2% of O₂ and N₂. Experiments carried out in a high pressure bomb, showed that at 40° and a pressure of 170 kg/cm² maximum solubility of CO₂ and petroleum amounts to 222 parts by volume

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USSR/Chemical Technology. Chemical Products and Their Application -- Treatment of natural gases and petroleum. Motor fuels. Lubricants, I-13

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5496

Abstract: per 1 part by volume, while with a higher ratio, two phases are formed: the upper being free CO₂ containing dissolved therein the light components of the petroleum (light phase), and a lower -- the heavy petroleum residue with CO₂ dissolved therein. The amount of hydrocarbons that pass into the light phase increases with increase in ratio of initial volumes of CO₂ and petroleum, and at the same time the density of hydrocarbons that pass into the light phase is increased; into the light phase pass the gasoline and kerosene components and a part of the solid paraffins; tarry substances were not found therein. CO₂ and kerosene are miscible in any proportions at 40° and a pressure of 170 kg/cm².

Card 2/2

GROMOVA, A.A., aspirant

Predicting the number of sugar beet weevils. Zashch. rast.
ot vrod. i bol. 6 no.5:40-41 My '61. (MIRA 15:6)

1. Ukrainskiy institut zashchity rasteniy.
(Sugar beets--Diseases and pests)
(Weevils)

VASIL'YEV, V.M.; GROMOVA, A.A.; KAPLAN, Yu.V.; et al., U.S.S.R.

Studying viscosity at increased temperatures. Nauch.-tekhn. sbor.
po dob. nefi no. 22:55-57 '64. (MIRA 17:9)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.

TREBIN, G.F.; SAVINIKHINA, A.V.; KAPYGIN, Yu.V.; GROMOVA, A.A.

Certain results of the study of the crystallization of paraffin
from the reservoir oil of the Bitkov oil field. Nauch.-tekhn. sbor.
po dob. nefti no.24:43-47 '64. (MIRA 17:10)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.

TARANOV, N. I. Timofeyevich, kand. biol. nauk; GROMOVA, A. G., red.

[chemical preservation of feeds] Khimicheskoe konservirovaniye
kormov. Moskva, Kolos, 1964. 198 p. (MIRA 18:9)

GROMOVA, A. I.

137-58-5-9561

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 105 (USSR)

AUTHOR: Gromova, A. I.

TITLE: Fundamental Problems in the Analysis of Process Procedures for Sheet Parts (Osnovnyye voprosy rascheta tekhnologicheskikh protsessov detaley tipa obshivok)

PERIODICAL: V sb.: Inzhenern. metody rascheta tekhnol. protsessov obrabotki metallov davleniyem. Moscow - Leningrad, Mashgiz, 1957, pp 191-196

ABSTRACT: A theoretical analysis of the process of stretch-wrap forming of parts with double curvature is presented. Analytical equations are derived for determination of the minimum possible longitudinal radius of a forming die in terms of the deformation of the thickness of material, the tensile stress required, and the minimum amount of stretching of the work before bending. This last is important so as to obtain a part of sufficient accuracy, i. e., to reduce spring-back.

M. Ts.

1. Dies--Design 2. Sheets--Processing 3. Metals--Stresses

Card 1/1

8(2)

AUTHORS:

Gerasimov, V. V., Gromova, A. I.,
Sabinin, A. A.

SOV/32-24-11-31/37

TITLE:

Autoclave for Electro-Chemical Investigations at High
Temperatures and Pressure
(Avtoklav dlya provedeniya elektrokhimicheskikh issledovaniy
pri vysokikh temperaturakh i davleniyakh)

PERIODICAL:

Zavodskaya Laboratoriya, 1958, Vol 24, Nr 11, pp 1420-1421
(USSR)

ABSTRACT:

So far there are no satisfactory methods of determining the
electrochemical potential and of plotting polarization curves
at temperatures of 300-350° and at a pressure of 100-200
atmospheres. In the literature autoclaves are described (Ref 1)
for the polarization of samples, but the problem of measuring
the potential was not dealt with. The problem is the deter-
mination of the potential of the comparison electrode in the
autoclave in comparison to the standard electrode which is
under normal pressure and at a normal temperature.

V. A. Gavrilin developed an autoclave with an electrolytic
key, which allows electrochemical determinations at high tem-
peratures and pressure (Sketch). In order to avoid a contact

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Autoclave for Electro-Chemical Investigations at
High Temperatures and Pressure

SOV/32-24-11-31/37

of the electrolyte liquid of the key with the metal of the autoclave, the respective parts were made of "ftorplast" or "mikaleks". The electrolyte key is cooled with water, as these plastic materials can endure temperatures up to 200° only. Bonnemay (Bonme) (Ref 3) shows that the temperature gradient of the potential at the borders of identical solutions of different temperatures is very low, and, therefore, a respective error can be neglected. The autoclave is made of ~~10189T~~ steel and has a capacity of 0.5 l. Cathode polarization curves for ~~10189T~~ steel in distilled water are given. The apparatus can be used for investigations up to 350° and 200 atmospheres. There are 2 figures and 3 references.

Card 2/2

18.8300

30641

S/081/61/000/020/045/089
B107/B101

AUTHORS: Gerasimov, V. V., Gromova, A. I., Shapovalov, E. T.

TITLE: Effect of oxygen on the corrosion behavior and the electro-chemical behavior of 1X18H9T (1Kh18N9T) steel

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 258, abstract 201138 (Sb. "Korroziya reaktorn. materialov". M., Atomisdat, 1960, 49-52)

TEXT: The authors studied the anodic and cathodic processes during corrosion of 1X18H9T (1Kh18N9T) steel in distilled water at 300°C and 87 atm. The rate of anodic dissolution of the metal is accelerated with a shift of the potential to the positive side. Addition of 400 - 430 mg/liter of O₂ has no effect on the anodic process but increases the rate of the cathodic process (shifting the stationary potential of 1Kh18N9T and EI-851 (EI-851) steels to the positive side). Corrosion remains uniform for all O₂ concentrations. [Abstracter's notes: Complete translation.]

Card 1/1

S/081/61/000/020/049/089
B107/B101

AUTHORS: Gerasimov, V. V., Aleksandrova, V. N., Gromova, A. I.,
Popova, K. A. Shapovalov, E. T.

TITLE: Study of the electrochemical behavior and the corrosion
behavior of 1X18H9T (1Kh18N9T) stainless steel in water of
different compositions

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 259, abstract
201146 (Sb. "Korroziya reaktorn. materialov". M., Atomizdat,
1960, 52-63)

TEXT: The authors studied the kinetics of electrode processes of 1X18H9T
(1Kh18N9T) stainless steel in distilled water and in solutions of Na_2SO_3 ,
and Na_2SO_4 , HNO_3 , HCl and H_2SO_4 , NaOH , NaCl at room temperature and 300°C ,
and at 87 atm pressure. It was shown that in all media, except for 0.15 N HCl ,
the 1Kh18N9T steel was in a passive state at corresponding potential values;
in the solutions mentioned, the rate of dissolution was $0.016 - 0.020 \mu\text{a}/\text{cm}^2$.

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Study of the electrochemical behavior...

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B107/B101

[Abstracter's note: Complete translation.]



Card 2/2

S/081/61/000/020/047/089
B107/B101

AUTHORS: Gerasimov, V. V., Gromova, A. I., Shapovalov, E. T.
TITLE: Study of the corrosion resistance of stainless steels in water vapor mixture at overcritical temperature and high pressures
PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 259, abstract 201144(Sb. "Korroziya reaktorn. materialov". M., Atomizdat, 1960, 185 - 190)

TEXT: The authors studied the corrosion resistance of stainless steels of the types 1X18H9T (1Kh18H9T), ЭИ-851 (EI-851), ЭИ-696 (EI-696) under overcritical conditions in strained and relieved state. They showed that corrosion of these steels was uniform in air-saturated water vapor mixture at 500 and 550°C, and that these steels had a quality KСЗ (KS 3) according to ГОСТ 5272-50 (GOST 5272-50). It is pointed out that mechanical stresses increase the rate of general corrosion. The corrosion of EI-851 steel in relieved and strained state decreases with time; the presence of O₂ at

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Study of the corrosion resistance...

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B107/B101

550°C causes pitting corrosion. [Abstracter's note: Complete translation.]

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30643

18-8306

S/081/61/000/020/048/089
B107/B101

AUTHORS: Gerasimov, V. V., Gromova, A. I.

TITLE: Study of the corrosion behavior and the electrochemical behavior of 12XM (12KhM) steel in water at high temperature

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 259, abstract 201145 (Sb. "Korrosiya reaktorn. materialov". M., Atomisdat, 1960, 191-199)

TEXT: The corrosion of 12XM (12KhM) steel was found to be of electrochemical nature at high temperatures (about 330°C) and pressures (130 kg/cm²). The corrosion rate of the steel was shown to increase with increasing oxygen concentrations in water. Corrosion was uniform for 12KhM steel samples tested in distilled water saturated with hydrogen and with hydrazine addition. Pitting corrosion occurred in water saturated with oxygen and air. [Abstracter's note: Complete translation.]

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GERMANIA 111

PHASE I BOOK EXPLOITATION

SOV/5256

Gerasimov, Valentin Vladimirovich, ed., Candidate of Chemical Sciences.

Korroziya reaktornykh materialov; sbornik statey (Corrosion of Nuclear-Reactor Materials; a Collection of Articles) Moscow, Atomizdat, 1960. 284 p. 3,700 copies printed.

Ed.: A.I. Zavodchikova; Tech. Ed.: Ye.I. Mazel'.

PURPOSE: This collection of articles is intended for mechanical and metallurgical engineers as well as for scientific research workers concerned with the construction of nuclear reactors.

COVERAGE: The water corrosion of various types of stainless steel and alloys under high pressures and temperatures is investigated from the point of view of the use of these materials for the construction of nuclear reactors. Attention is given to the following: the use of oxygen for protecting steel against corrosion, the behavior of steel in high-temperature

Card-1/9

Corrosion of Nuclear- (Cont.)

SOV/5256

water with various compositions, factors of metal stress corrosion, intergranular corrosion, the mechanism of corrosion cracking, and the corrosion resistance of aluminum and zirconium alloys. Conclusions based on test results are included. No personalities are mentioned. Most of the articles are accompanied by references. Of 238 references 97 are Soviet.

TABLE OF CONTENTS:

Foreword

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PART I. METHODS OF INVESTIGATING WATER
AND ELECTROCHEMICAL CORROSION AT
HIGH TEMPERATURES AND PRESSURES

5

Gulyayev, V. N., and P. A. Akol'zin. Methods of Testing the Corrosion-Creep Strength of Metals at High Pressures and Temperatures
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/8 8300

20314
S/061/61/000/016/022/040
B106/B1C1

AUTHORS. Gerasimov, V. V. Gromova, A. I., Shapovalov, E. T.
TITLE. Corrosive cracking of steel of the type 1X18H9T (1Kh18N9T)
PERIODICAL: Referativnyy zhurnal. Khimiya, no. 16, 1961, 306. abstract
16U170 (Sb. "Korroziya reaktorn. materialov". M., Atomizdat,
1960, 139-144)

TEXT. The study of the effect of the O_2 and Cl^- concentration on the
corrosive cracking of steel of the type 1X18H9T (1Kh18N9T) showed that at
a constant Cl^- content of 0.1 mg/liter the time until corrosive cracking
sets in increases if the O_2 content is reduced from 40 to 0.4 mg/liter.

[Abstracter's note: Complete translation.]

Card 1/1

S/076/61/035/006/010/013
B127/B203

AUTHORS: Gerasimov, V. V., Gromova, A. I., Sabinin, A. A., and
Shapovalov, E. T.

TITLE: Autoclave for electrochemical investigations at high
temperatures and pressures

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 6, 1961, 1359-1361

TEXT: The authors describe an autoclave to which the reference electrode is attached outside and is kept at room temperature. An electrolytic cell establishes the contact with the solution in the autoclave. It must also endure the higher temperatures in the autoclave. A thermodiffusion potential results from the temperature gradient in the cell, which has to be taken into account. Since glass and quartz are dissolved, metal is used for the cell. Fig. 1 shows the measuring arrangement in a simulated representation. Due to earthing of the potentiometer 10, the electrode potential behaves just as in a glass cell. An essential shortcoming of the autoclave of Fig. 2 is that the cathodic and anodic curves of experiments in distilled water are only dependable for those curve sections

Card 1/5

Autoclave for electrochemical...

S/076/61/035/006/010/013
B127/B203

where the current density does not exceed $70 \mu\text{a}/\text{cm}^2$. In the autoclave construction of Fig. 3, the anodic and cathodic spaces are divided. This shifts the major part of the potential drop between the electrodes into the electrolytic cell. Therefore, the residual drop in the vacuum (containing the specimen to be tested) is small and negligible. This also applies to the thermodiffusion potential formed due to the temperature increase in the cell. At the boundary of similar solutions of different temperatures, the value was only about 10^{-6} v/deg. There are 3 figures and 1 non-Soviet-bloc reference. The reference to the English-language publication reads as follows; M. Bonnemay, Proc. meeting international committee of electrochemical thermodynamics and kinetics, 1954, London, 1955, 68. J

SUBMITTED: October 16, 1958

Card 2/5

GERASIMOV, V.V., kand.khim.nauk; GROMOVA, A.I., inzh.

Investigating the corrosion resistance of 12KhM steel in
distilled water at a temperature of 330° C and a pressure
of 130 kg/cm². Teploenergetika no.4:42-47 Ap '60.
(MIRA 13:8)

(Steel--Corrosion)

30192

18.8300

S/080/61/034/011/011/020
D243/D301

AUTHORS: Gerasimov, V.V., Gromova, A.I., and Shapovalov, E.T.

TITLE: The corrosion behavior of zirconium in distilled water at 85°C

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 11, 1961, 2473 - 2477

TEXT: The authors studied the corrosion resistance of zirconium (1) in distilled water at 85°C and (2) in contact with 1X18H9T (1Kh18N9T) steel and AlM aluminum, in distilled water at 85°C. Three types, A (greatest impurity), B, C (least impurity) of zirconium, containing up to 5 % impurity, were used in the tests. The samples were suspended on glass hooks in glass vessels in a thermostat after being previously treated to remove surface impurities. Contact was achieved as shown in Fig. 1. Corrosion resistance was estimated visually and by weight loss. The maximum weight loss was shown by samples of A after 100 hours (0.815 g/m²), equivalent to a corrosion rate of 0.008 g/m². Under these conditions therefore,

Card 1/2

30198

S/080/61/034/011/011/020

The corrosion behavior of zirconium ... D243/D301

zirconium may be considered highly resistant. On a 1000 hour test it is considered completely resistant. Contact with stainless steel and aluminum alters the kinetics of corrosion, but leads to no increase in the rate. A 1 m gap between the contacting surfaces causes no change in behavior. The high corrosion resistance depends on zirconium passivity in these conditions. There are 6 figures, 2 tables and 2 Soviet-bloc references. X

SUBMITTED: November 28, 1960

Card 21/2

GERASIMOV, V.V.; GROMOVA, A.I.

Effect of the solvent composition on the anodic behavior of
low-carbon steel. Zbur.prikl.khim. 33 no.7:1563-1567
Jl '60. (MIRA 13:7)

(Steel--Corrosion)

GERASIMOV, V.V.; GROMOVA, A.I.; SABININ, A.A.; SHAPOVALOV, E.T. (Moscow)

Autoclave for electrochemical studies at 300° and at pressures up
to 100 kg/cm². Zhur.fiz.khim. 35 no.6:1359-1361 Je '61.
(MIRA 14:7)

(Electrochemistry) (Autoclaves)

GROMOVA, A. I. and MOSKVICHEV, G. S. *co-authors with GERASIMOV, V. V.*

"Some Aspects of the Theory of Corrosion of Reactor Materials in
Critical-Parameter Water"

report presented at the IAEA Symposium on Corrosion of Reactor Materials,
Salzburg, Austria, 4-9 June 1962.

GERASIMOV, V. V., doktor tekhn. nauk; GROMOVA, A. I., inzh.;
SABININ, A. A., inzh.

Corrosion resistance of chromium steel in water and steam with
critical parameters. Teploenergetika 10 no. 3:22-25 Mr '63.
(MIRA 16:4)

(Steel—Corrosion)

GERASIMOV, V.V.; GROMOVA, A.I.; GLOVINA, Ye.S.; MOSKVICHEV, G.S.;
PAVLOVA, P.S.; SMIRNOV, V.V.; SHAPOVALOV, E.T.;
PANASENKOVA, Ye.I., red.; MAZEL', Ye.I., tekhn. red.

[Corrosion and irradiation] Korrozia i obluchenie. [By]
V.V.Gerasimov i dr. Moskva, Gosatomizdat, 1963. 267 p.
(MIRA 16:11)

(Corrosion and anticorrosives)
(Materials, Effect of radiation on)

GERASIMOV, V.V.; GROMOVA, A.I.; SHAPOVALOV, E.T.

[Effect of oxygen on the corrosion and electrochemical
behavior of 1Kh18N9T steel] Vliianie kisloroda na kor-
roziionnoe i elektrokhimicheskoe povedenie stali 1Kh18N9T.
Moskva, Glav.upr. po ispol'zovaniyu atomnoi energii, 1960. 5 p.
(MIRA 17:1)

(Steel--Corrosion)
(Water, Distilled--Oxygen content)

GERASIMOV, V.V.; GROMOVA, A.I.; SABININ, A.A.; CHAIKVALOV, E.T.

[Autoclave for electrochemical research] Avtoklav dlia
elektrokhimicheskikh issledovani. Moskva, Glav. upr.
po ispol'zovaniyu atomnoi energii, 1960. 8 p.
(MIRA 17:2)

GERASIMOV, V.V.; GROMOVA, A.I.

[Effect of the composition of solutions on the anodic behavior of steel] Vliianie sostava rastvora na anodnoe povedenie stali. Moskva, Glav. upr. po ispol'zovaniu atomnoi energii, 1960. 11 p. (MIRA 17:1)

GERASIMOV, V.V.; ALEKSANDROVA, V.I.; GROMOVA, A.I.; POPOVA, K.A.;
SHAPOVALOV, E.T.

[Investigating the electrochemical and corrosion behavior
or 1Kh18N9T stainless steel in water of various composi-
tion] Issledovanie elektrokhimicheskogo i korroziionnogo
povedeniia nerzhaveiushchei stali 1Kh18N9T v vode razlich-
noho sostava. Moskva, Glav.upr. po ispol'zovaniyu atomnoi
energii, 1960. 17 p. (MIRA 17:1)
(Steel, Stainless--Corrosion) (Electrochemistry)

GERASIMOV, V.V.; GROMOVA, A.I.

[Investigating the corrosion and the electrochemical
behavior of 12KhM steel in water at high temperatures]
Issledovanie korrozionnogo i elektrokhimicheskogo povede-
niia stali 12KhM v vode pri vysokoi temperature. Moskva,
Glav. upr. po ispol'zovaniu atomnoi energii, 1960. 14 p.
(MIRA 17:1)

(Steel—Corrosion)
(Metals, Effect of temperature on)

GERASIMOV, V.V.; GROMOVA, A.I.; SHAPOVALOV, E.T.; SHATSKAYA,
O.A.

[Development of the method of electrochemical measurements at a temperature up to 300° C and pressure up to 100 kg/cm²] Razrabotka metodiki elektrokhimicheskikh izmerenii pri temperature do 300° C i davlenii do 100 kg/cm².
Moskva, Gos.kom-t po ispol'zovaniu atomnoi energii, 1961.
20 p. (MIRA 17:1)

AM,036546

BOOK EXPLOITATION

3/

Gerasimov, V. V.; Gromova, A. I.; Golovina, YE. S.; Moskvichev, G. S.;
Pavlova, F. S.; Smirnov, V. V.; Shapovalov, E. T.

Corrosion and irradiation (Korroziya i oblucheniye), Moscow, Gosatomizdat, 1963,
267 p. illus., biblio. 3,000 copies printed.

TOPIC TAGS: corrosion, irradiation, nuclear reactor, nuclear reactor material,
metallurgy, stainless steel, chromium steel, carbon steel, low alloy steel,
aluminum alloy, protective coating, electrochemical behavior

PURPOSE AND COVERAGE: The basis of this monograph was the research conducted by
the authors in recent years that has been published in the periodical literature
and the work of Soviet and foreign authors on the problems of the corrosion resis-
tance of structural materials. The monograph consists of ten chapters in which
corrosion and the protection of structural materials used in reactors, the inter-
action of radiation of the nuclear reactor with a substance and the effect of radia-
tion on the corrosion and electrochemical behavior of metals are examined. The
general and systematized material on the corrosion resistance of metals used in
reactors will be useful to a wide circle of designers, researchers, and engineers

Card 1/3

AM4036546

concerned with problems of reactor construction. Chapters I, VII, IX, and X were written by V. V. Gerasimov, Chapters II, IV -- E. T. Shapovalov, Chapter III -- A. I. Gromova, Chapter V -- V. V. Smirnov, Chapter VI -- G. S. Moskvichev, Chapter VIII -- F. S. Pavlova and Ye. S. Golovina. The authors express their gratitude to I. Ye. Zimakov for assistance in writing Chapter IX and their associates who participated in the research.

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SUB CODE: ML, NS

SUBMITTED: 14Mar63 NR REF SOV:0179

OTHER: 308

DATE ACQ: 07May64

Card 3/3

GELASIMOV, V.V., GROMOVA, A.I. ; SHAPOVALOV, N.I.

Autoclave for chemical and corrosion tests at high temperatures
and pressures. Zav. lab. 30 no.1:110-111 1974. (MIRA 17:9)

GROMOVA, A.I.

Effect of the fertilization conditions on the strain quality of seed.
Agrobiologiya no.1:155-156 Ja-F '65. (MIRA 18:4)

1. Blagoveshchenskiy sel'skokhozyaystvennyy institut.

L 48305-65

ENT(m)/EPF(c)/EWA(d)/ENP(t)/ENP(z)/ENP(b) IJP(c) MJM/XO/MB

ACCESSION NR: AP5006295

S/0096/65/000/003/0036/0038

AUTHOR: Gerasimov, V. V. (Doctor of technical sciences, Professor); Gromova, A. I. (Engineer); Shapovalov, E. T. (Engineer)

TITLE: Corrosion resistance of copper and copper alloys in water under static conditions

SOURCE: Teploenergetika, no. 3, 1965, 36-38

TOPIC TAGS: copper, copper alloy, metal corrosion, corrosion resistance

ABSTRACT: Copper and 11 copper alloys (see table 1 of the Enclosure) were tested for corrosion resistance in water. It was found that M-2 alloy belongs to the class of extremely stable materials according to GOST specifications 5072-52 under static conditions in highly pure deaerated water with pH = 5.6-7 from room temperature to 300°C. This alloy cannot be used in highly pure water with pH > 7.9 and more than 1 mg/l of oxygen as its corrosion resistance is reduced under these conditions. BrB-2 and BAZhM alloys have the highest resistance to corrosion of the metals investigated in highly pure water at 80-300°C and in a steam-air atmosphere at 100°C. LS-59-1 and L62 brass as well as AMTs and BrOF bronze cannot be used as structural material in highly pure water at 200 and 300°C. All data given on cor-

Card 1/3

L 48305-65

ACCESSION NR: AP5006295

Corrosion rates apply only to static operational conditions. A water flow higher than 1.5 m/sec causes a considerable increase in the corrosive and erosive destruction of copper. Orig. art. has: 4 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 01

SUB CODE: MM

NO REF SOV: 002

OTHER: 003

Card 2/3

L 48005-65

ACCESSION NR: AP5006295

ENCLOSURE: 07

Table 1. Chemical composition of the copper alloys investigated

Material	Content of elements in % by weight										
	Cu	Al	Mn	Fe	Ni	Si	Be	Sn	Zn	Pb	As
M-2	Rem.	--	--	0.05	0.2	--	--	0.05	--	0.01	0.010
BrAZhM	"	9.43	2.3	3	--	--	--	--	--	--	--
BrAZh	"	9.4	2.02	2.5	--	--	--	0.1	--	--	0.01
BrKMTs	"	--	1.65	--	--	3.02	--	--	--	--	--
BrOF	"	0.01	--	0.05	--	0.02	--	7.25	--	0.02	--
BrB-2	"	0.15	--	0.15	0.22	0.15	2.18	--	--	0.005	--
	"	--	--	1.0 + 1.4	--	--	--	--	--	--	--
AMTs	"	8	1.5	--	14.5	--	--	--	19.0	--	--
MNTs	"	--	0.23	--	16.2	--	--	--	19.0	--	0.1
LS-59-1	58.7	--	--	--	--	--	--	--	--	1.52	--
L62	62	--	--	0.15	--	--	--	--	--	0.08	--

Card 3/3

GRONOVA, A.I.; MORONOVA, I.K.; GURLOVA, I. I.

Effect of the radiation of thermal neutrons on the properties of
of mercury oxide electrodes. Zhurnal. fiz. khim. 45:1177-1180, 1971.
(PILA 19:2)

L 14979-66 ENT(m)/ENA(d)/ENP(t)/ENP(z)/ENP(b). IJP(o) MJW/JD/WW/JW/WB
 ACC NR: AP6001803 (N) SOURCE CODE: UR/0089/65/019/006/0546/0549

AUTHOR: Belous, V. N.; Gromova, A. I.; Shapovalov, E. T.; Gerasimov, V. V.

ORG: none

TITLE: Corrosion resistance of construction materials in boron-containing solutions

SOURCE: Atomnaya energiya, v. 19, no. 6, 1965, 546-549

TOPIC TAGS: corrosion rate, boron compound, nuclear reactor material, nuclear reactor shield

ABSTRACT: Since boron has a large cross section for thermal neutron capture, boron-containing solutions are used for neutron shielding and reactor control. The use of aqueous solutions of boron, however, raises the question of corrosion resistance to such solutions of various construction materials. The authors carried out corrosion tests up to 100C in solutions of boric acid, sodium tetraborate, and ammonium tetraborate. Tabulated data are presented showing 1) the characteristics of the original solutions at room temperature; 2) the rate of corrosion in the 20-100C temperature range for periods of 100 - 500 hr of OKh18N10Ti steel, VT-1-2 alloy (Ti), AMg-5 alloy (Al), S-1 lead and steel 20 in deaerated and air-saturated boron-containing solutions; 3) the ratio of the amount of metal going into the solution to the

Card 1/2

L 14979-66

ACC NR: AP6001803

amount of metal lost due to corrosion; and 4) the rate of corrosion of these materials in boric acid at 100C for a period of 100 hr. Orig. art. has: 4 tables.

SUB CODE: 11, 18 / SUBM DATE: 17Mar65 / ORIG REF: 001 / OTH REF: 006

Card 2/2 *vmt*

UDC: 620.193.4: 621.039.546

BELOVA, V.N.; GROMOVA, A.I.; SHCHERBA, A.I.; ...

Corrosion resistance of construction materials in concentrated
solutions. Atom. energ. 19 no.6:546-549 B 195.

(MIRA 19:1)

L 41036-66 EwI(m)/I/EwF(t)/ETI IJP(c) JD/HR/SC/MP

ACC NR: AP6013727 (N) SOURCE CODE: UR/0089/66/020/004/0330/0333

AUTHOR: Lupakov, I. S.; Parfenov, B. G.; Gromova, A. I.

ORG: none

TITLE: The influence of heat treatment on the corrosion resistance of zirconium alloys

SOURCE: Atomnaya energiya, v. 20, no. 4, 1966, 330-333

TOPIC TAGS: corrosion resistance, annealing, zirconium, niobium containing alloy, metal heat treatment, nuclear reactor material

ABSTRACT: The authors investigate the influence of heat treatment conditions on the corrosion stability of zirconium alloys containing 1.0 and 2.5% of niobium. These alloys have been developed in the Soviet Union for nuclear reactors. Results cover the corrosion of zirconium alloys in vapor at 400C and 100 atm and the appearance of samples held 950 hr. at high temperature-high pressure conditions. The authors investigate double annealing, annealing for 30 min at 700C, 50% cold rolling without and with 10 min 560C, and 30 min 700C annealing. An analysis of the results shows that the best corrosion resistance is achieved by double annealing. The effect is the strongest in zirconium alloy with 2.5% Nb. Orig. art. has: 2 figures.

Card 1/2

UDC: 669.018.8:546.831

L 41C36-66

ACC NR: AP6013727

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SUB CODE: 11,18/ SUBM DATE: 29May65/ ORIG REF: 002/ OTH REF: 007

Card

2/2

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GRAPIC, P. N.

25(1.6) PHASE I BOOK EXPLOITATION 307/1598
Akademicheskii SSSR. Institut mashinovedeniya

Obzory nauchnykh i tekhnicheskikh izobretenii (Main Problems of Accuracy and Reliability and Engineering Measurements in Machine Building). Moscow, 1953. All 9. 4,500 copies printed.

Ed.: A.M. Gavrilov, Doctor of Technical Sciences, Professor; Tech. Ed.: B.I. Medel', Managing Ed. for Literature on Metal Working and Tool Making (Machin); R.D. Raynov'skiy, Engineer.

PREPARE: This collection of articles is intended for engineering and scientific workers and for teachers and students of machine and instrument building courses.

CONTENTS: This collection of articles presents the works of a conference on basic problems of accuracy, interchangeability and engineering measurements, convened in March 1953 by the Machine Building Technology Commission of the USSR Academy of Sciences (Institute of Machine Construction of the Academy of Sciences, USSR), the State Committee for Machine Building, the Central Research Institute of Machine Building, the Ministry of Machine Building and the Ministry of Higher Education of the USSR. In the articles dealing with accuracy of fabrication, problems of the theory and standards of calculating accuracy of standard processes and interchangeability are discussed. In the articles on interchangeability and engineering measurements an evaluation of the present state of this field is presented along with the scientific and engineering outlook for the future. Theoretical and practical problems of automatic inspection are discussed. The personalities are mentioned. There are 140 references of which 121 are Russian, 10 German, 8 English, 1 French.

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Card 5/8

Encl. 1, 2, 3.

Sci Tech 50

Disertation: "Investigation of the Influence of Factors
on Airplane Skin."

17/5/50

Sci Res Inst of Technology and Organization
of Production in Aviation Industry.

SO Vecheryaya Moskv.
Sum 71

GROMOVA, Antonina Nikiforovna; ZAV'YALOVA, Valentina Ivanovna; KOROBOV, Vladimir Konstantinovich; BOYTSOV, V.V., prof., red.; BEKIN, S.S., inzh., retsentsent; SHEKHTER, V.Ya., kand.tekhn.nauk, red.; SHEYN-FAYN, L.I., izdat.red.; PUKHLIKOVA, N.A., tekhn.red.

[Manufacturing parts of sheets and sections in lot production]
Izgotovlenie detalei iz listov i profilei pri serinom proiz-
vodstve. Pod obshchei red. V.V.Boitsova. Moskva, Gos.nauchno-
tekhn.isd-vo Oborongiz, 1960. 343 p. (MIRA 13:7)
(Metalwork)

L 17719-65 EWT(d)/EED-2/EWP(1) Pk-1/Pk-1/Po-1/Pq-1 IJP(c)/AFWL/BSD/
ASD(a)-5/SSD/AFMD(p)/AFETR/AFTC(b)/RAEM(a)/AFIC(p)/RAEM(a)/ZSD(dp) OG/BB/MLK
ACCESSION NR: AT4047755 S/0000/64/000/000/0191/0198

AUTHOR: Gromova, A. P.

TITLE: Development of an analog storage based on the magnetostrictive-delay line

SOURCE: AN SSSR. Institut avtomatiki i telemekhaniki. Teoriya i primeneniye avtomaticheskikh sistem (Theory and application of automatic systems). Moscow, Izd-vo Nauka, 1964, 191-198

TOPIC TAGS: analog computer, analog storage, delay line, magnetostrictive delay line, magnetostrictive analog storage

ABSTRACT: A magnetostrictive storage device suitable for "dynamic"-type analog computers is described. Its development is based on the findings of S. H. Jury (Military Systems Design, Jan-Feb, 6, no. 1, p. 22, 1962) and A. D. Radford (Electronic Industries, 21, no. 3, March, p. 114, 1962). The magnetostrictive delay line uses frequency modulation in storing the incoming LF-voltage signal. The delay line consists of five nickel (99% Ni), 0.3-mm-dia, 3.3-m-long

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wires, wound in parallel on a 330-mm-dia-plexiglas disk, and an electronic circuit. Input and output coils (data supplied) and a permanent magnet are coupled with the nickel wires. The electronic part comprises these electron-tube units: a pulse-packet generator (a Schmidt trigger, a single-shot multivibrator, a pulse shaper); an FM multivibrator which produces 1.7-1.9-microsec pulses with a repetition period of 15-5 microsec as the input voltage varies within 0-100 v which corresponds to a 70-200 kc range; an output r-f amplifier; a semiconductor-diode gate which permits circulating the output-pulse packet. The rms error of the delay line is claimed to be 1.5%. Technical data on components is supplied as well as a simplified schematic diagram. Orig. art. has: 8 figures and 3 formulas.

ASSOCIATION: none

SUBMITTED: 06Jun64

ENCL: 00

SUB CODE: DP

NO REF SOV: 003

OTHER: 002

Card 2/2

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